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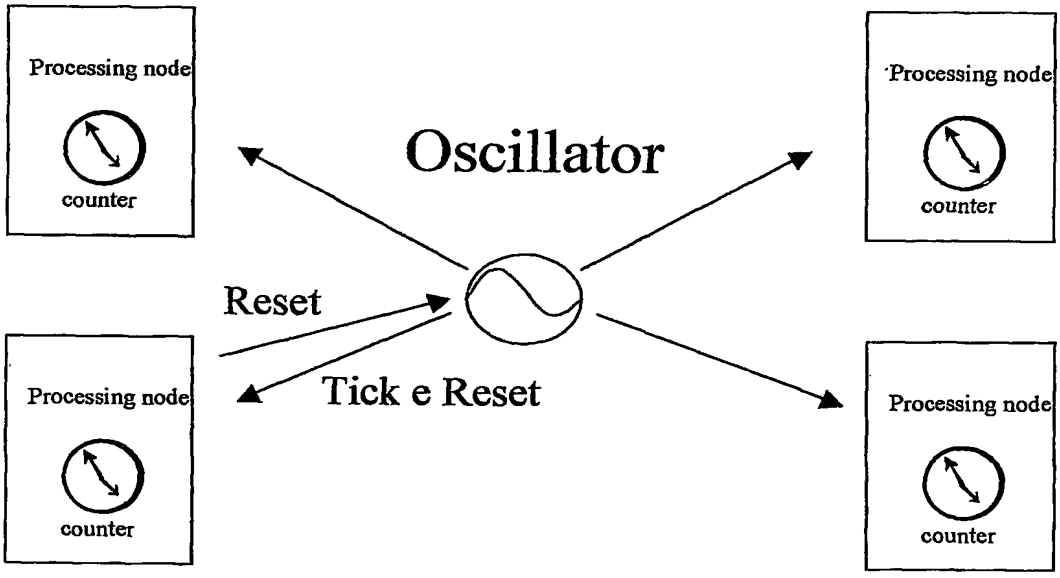
(54) Title: DISTRIBUTED GLOBAL CLOCK FOR CLUSTERS OF COMPUTERS



(57) Abstract: The present invention refers to a global clock system for clusters or networks of computers implemented entirely in hardware. The system uses a specifically designed hierarchical network to distribute clock pulses that are used to increment time counters in the cluster' nodes. In addition, this network enables any node of the cluster to send a reset signal to the other nodes so that all local time counters are initialized simultaneously and remain automatically synchronized afterwards. In this way, each processor in the cluster is able to obtain the value of the global clock whenever accessing its own local time counter. The reset signal is the only function that is implemented in software.

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